

WHAT IS CLAIMED IS:

1. A method for routing an externally generated message in a network, comprising:

receiving at an ingress port of a network a message  
5 from an external network, the message comprising internet  
protocol (IP) source and destination addresses and  
message data;

translating the IP source and destination addresses  
to internal addresses that are non-forwardable in the  
10 external network; and

routing the message data in the network based on the  
internal addresses.

2. The method of Claim 1, wherein the internal  
15 addresses comprise reserved loop back addresses.

3. The method of Claim 1, further comprising:  
receiving at an egress port of the network a  
response to the message, the response comprising internal  
20 source and destination addresses and response data;

translating the internal source and destination  
addresses to external IP addresses; and

transmitting the response data for routing in the  
external network based on the source and destination IP  
25 addresses.

4. The method of Claim 3, further comprising:  
storing an IP source address of the message; and  
using the IP source address in translating an  
30 internal address of the response for routing in the  
external network.

5. The method of Claim 1, wherein the message comprises a control message generated by a management station.

- 5        6. The method of Claim 1, wherein the internal addresses comprise a loop back indicator, a identifier of a node in the network and identifier of an element in the node.

7. A system for routing an externally generated message in a network, comprising:

means for receiving at an ingress port of a network a message from an external network, the message  
5 comprising internet protocol (IP) source and destination addresses and message data;

means for translating the IP source and destination addresses to internal addresses that are non-forwardable in the external network; and

10 means for routing the message data in the network based on the internal addresses.

8. The system of Claim 7, wherein the internal addresses comprise reserved loop back addresses.

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9. The system of Claim 7, further comprising:

means for receiving at an egress port of the network a response to the message, the response comprising internal source and destination addresses and response  
20 data;

means for translating the internal source and destination addresses to external IP addresses; and

means for transmitting the response data for routing in the external network based on the source and  
25 destination IP addresses.

10. The system of Claim 9, further comprising:

means for storing an IP source address of the message; and

30 means for using the IP source address in translating an internal address of the response for routing in the external network.

11. The system of Claim 7, wherein the message comprises a control message generated by a management station.

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12. The system of Claim 7, wherein the internal addresses comprise a loop back indicator, a identifier of a node in the network and identifier of an element in the node.

13. A system for routing an externally generated message in a network, comprising:

logic encoded in media; and

the logic operable to receive at an ingress port of  
5 a network a message from an external network, the message  
comprising internet protocol (IP) source and destination  
addresses and message data, to translate the IP source  
and destination addresses to internal addresses that are  
non-forwardable in the external network and to route the  
10 message data in the network based on the internal  
addresses.

14. The system of Claim 13, wherein the internal  
addresses comprise reserved loop back addresses.

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15. The system of Claim 13, the logic further  
operable to receive at an egress port of the network a  
response to the message, the response comprising internal  
source and destination addresses and response data, to  
20 translate the internal source and destination addresses  
to external IP addresses and to transmit the response  
data for routing in the external network based on the  
source and destination IP addresses.

25 16. The system of Claim 15, to logic further  
operable to store an IP source address of the message and  
use the IP source address in translating an internal  
address of the response for routing in the external  
network.

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17. The system of Claim 13, wherein the message comprises a control message generated by a management station.

- 5        18. The system of Claim 13, wherein the internal addresses comprise a loop back indicator, a identifier of a node in the network and identifier of an element in the node.